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UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

SAN FRANCISCO DIVISION

ASETEK DANMARK A/S,

Plaintiff and Counter-defendant,

v.

COOLIT SYSTEMS, INC.,

Defendant and Counter-claimant,

CORSAIR GAMING, INC. and CORSAIR MEMORY, INC.,

Defendants.

Case No. 3:19-cv-00410-EMC

DEFENDANTS' NOTICE OF MOTION AND MOTION FOR SUMMARY JUDGMENT

Date: May 5, 2022
Time: 1:30 pm
Location: COURTROOM 5, 17TH FLOOR
JUDGE: HON. EDWARD M. CHEN

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I. INTRODUCTION

PLEASE TAKE NOTICE that on May 5, 2022 at 1:30 p.m., or as soon thereafter as the matter may be heard, in this Court, Defendant CoolIT Systems, Inc. ("CoolIT") will and hereby does move for summary judgment as set forth below. This motion is based upon this notice of motion and motion, which includes the following memorandum of points and authorities, the accompanying Declaration of Reuben H. Chen ("Chen Decl.") and exhibits thereto, and upon such other and further matters, papers, and arguments as may be submitted to the Court at or before the hearing on this motion.

A. Summary judgment of non-infringement under Asetek's claims

Of the seven patents Asetek Danmark A/S ("Asetek") has asserted against CoolIT, only one—U.S. Patent No. 8,240,362 (the "'362 patent")—remains and is not subject to stay. The '362 patent requires "an impeller having a plurality of *curved* blades" and a *single-receptacle* "reservoir" with upper and lower chambers contained within it. But CoolIT's straight impeller blades are admittedly "not curved," and the Tamriel design indisputably has two separable receptacles rather than a "single receptacle." Straight cannot be equivalent to curved, and two receptacles cannot be equivalent to one. CoolIT's products, therefore, do not infringe the '362 patent as a matter of law.

B. Summary judgment of validity over *Antarctica* under CoolIT's claims

That leaves CoolIT's patent infringement claims against Asetek. Asetek asserts that an alleged *Antarctica* sample has "microchannels" with widths up to one millimeter, as required by the asserted claims of CoolIT's U.S. Patent Nos. 8,746,330 (the '330 patent), 9,603,284 (the '284 patent), and 10,274,266 (the '266 patent). But Asetek offers only uncorroborated *ipse dixit* testimony on that point, when the only available empirical evidence shows otherwise. Asetek also fails to show the *Antarctica* sample is prior art, and representative of a product sold before August 9, 2007. CoolIT is therefore entitled to summary judgment against Asetek's *Antarctica*-based invalidity defense.

II. FACTUAL BACKGROUND

A. Asetek's claims

1. Asetek's prior lawsuits

Asetek first asserted the '362 patent against CoolIT in 2012-2015. That case ended with a confidential settlement. Towards the end of the case, CoolIT designed a new impeller with straight

blades and informed Asetek of the new design. (Chen Decl., Ex.[1] 1 (email to Asetek including new design).) Nearly four years then passed before Asetek brought its current suit against CoolIT. Acknowledging the lack of "curved blades," Asetek's theory is limited to infringement under the doctrine-of-equivalents. But straight is not and cannot be equivalent to its opposite "curved."

Asetek also previously filed suit against CMI USA, Inc. and Cooler Master Co., Ltd. That case resulted in a jury verdict in Asetek's favor. Critically, in order to overcome invalidity arguments, Asetek argued and the jury found that the prior art identified in that case did not have Asetek's claimed "reservoir" / "single receptacle" limitation.[2] CoolIT's Tamriel design deliberately practices that prior art, in which two separable receptacles are connected together via a gasket. Here, too, Asetek's strained theory that *two* separable receptacles are equivalent to *one* single receptacle cannot stand.

2. The disputed "curved blades" and "single receptacle" limitations were critical to patentability

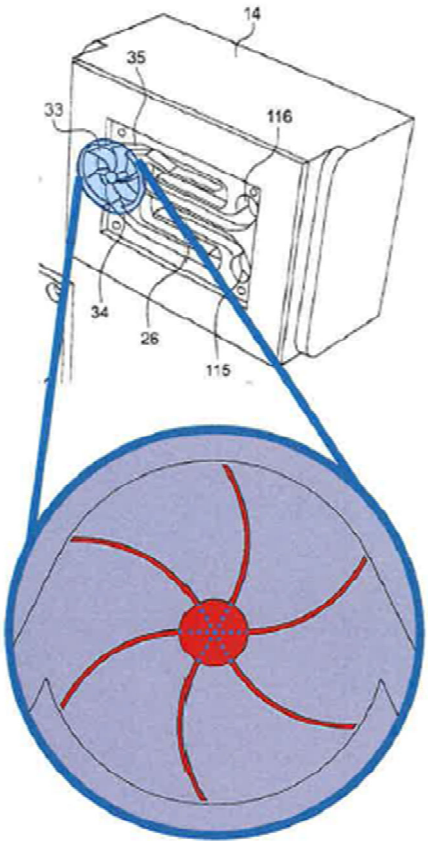
The '362 patent lays claim to a liquid cooling system with "curved" impeller blades and a single-receptacle "reservoir" divided into two compartments that circulates cooling liquid to keep computer chips from overheating. (*See* '362 patent (ECF No. 1-1), claims 17, 19 (the last remaining asserted claims).) Asetek had to include each of these limitations (among others) to avoid prior art in a very crowded field. (*See, e.g.*, Ex. 2, U.S. Patent No. 7,971,632 file history, December 18, 2008 Amendment (adding "curved blades")); *see also Asetek Danmark A/S v. CMI USA Inc.*, 852 F.3d 1352, 1357-58 (Fed. Cir. 2017) ("the jury found that the claimed liquid-cooling systems differ from the prior art … because the 'reservoir' is a '*single receptacle that is divided into an upper chamber and a lower chamber*'") (emphasis added). Independent claim 17 includes the following limitations relevant to this motion (with underling added):

> 17. A method of operating a liquid cooling system for an electronic component positioned on a motherboard of a computer system, comprising:
>
> separably thermally coupling a heat exchanging interface of a reservoir with the electronic component positioned at a first location on the motherboard, the reservoir including an upper chamber and a lower chamber, the upper chamber and the lower

[1] All references to "Ex." refer to exhibits to the Chen Decl.
[2] CoolIT's current counsel was not involved in the prior trial of that case. After the jury verdict in that case, CoolIT's current counsel was hired to represent CMI USA and Cooler Master Co., Ltd.

> chamber being separate chambers that are vertically spaced apart and separated by at least a horizontal wall, the upper chamber and the lower chamber being fluidly coupled by one or more passageways, at least one of the one or more passageways being positioned on the horizontal wall, the heat exchanging interface being removably coupled to the reservoir such that an inside surface of the heat exchanging interface is exposed to the lower chamber of the reservoir; …
>
> activating a pump to a circulate a cooling liquid through the reservoir and the heat radiator, the pump including a motor and an impeller having curved blades, the impeller being positioned in the reservoir; and … .[3]

B. The '362 patent requires "curved blades," but CoolIT's products have straight blades



The only embodiment in the '362 patent showing an impeller with blades is FIG. 15. (Ex. 3 (12/8/2021 Dr. Abraham report), at ¶ 105 (annotated excerpt of FIG. 15 (rotated 90º CW)), reproduced at right.) The specification describes impeller 33 as follows: "The impeller 33 of the pump has a shape and a design intended only for one way rotation, in the embodiment shown a clockwise rotation only." ('362 patent (ECF No. 1-1), at 18:8-11.)

The file history of the '362 patent and the lengthy file history of its parent application (with 7 office action rejections over 5 years) bear emphasizing because they show that the claims of the '362 patent were issued on *very narrow* grounds over prior art. In particular, during prosecution of the parent application, Asetek amended its claims to include "an impeller having a plurality of curved blades," and argued that the impellers in prior art references, such as Batchelder, Chu, and Alvaro, did "not disclose that "the impeller [has] a plurality of curved blades." (Ex. 2 (12/18/2008 Reply to Office Action), at 4, 15-17.[4])

---

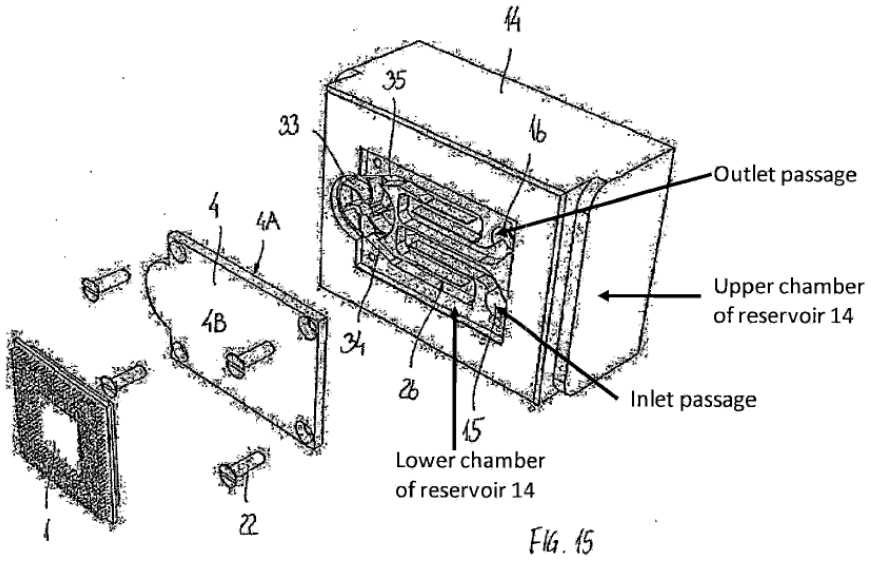
[3] Dependent claim 19 does not add any limitations relevant to this motion.

[4] The Examiner subsequently found that another reference, Chou, disclosed the limitation of an "impeller having a plurality of curved blades." (Ex. 4 (3/20/2009 Office Action, Final Rejection), at 4.) Asetek then amended its claims to recite a "reservoir comprising an upper chamber and a lower chamber, the upper chamber and the lower chamber being separate chambers that are fluidly coupled together by an inlet passage and an outlet passage." (Ex. 5 (4/4/2011 Reply to Office Action), at 4.)

In the accused CoolIT products (including both H100i and Tamriel), the impeller does not have "curved blades." Rather, it has straight blades (as shown on the right). (Ex. 7 (11/3/2021 Tuckerman Infringement Rep.), at ¶ 69 (excerpt).) Asetek's expert concedes that the blades in CoolIT's impeller are not curved. (*See id.*, at ¶¶ 290, 321 (admitting that "the blades in the impeller of the H100i Liquid Cooler [and Tamriel design] are not literally curved").)

C. The '362 patent requires a "single receptacle," but CoolIT's Tamriel design has two separable receptacles

The '362 patent also claims a "reservoir" construed as a "single receptacle defining a fluid flow path" and "chamber(s)" construed as "compartment(s) within the reservoir" based on the parties' stipulation and the Court's order. (ECF Nos. 67 (at 2-3 of 51), 104 (at 9 of 20), 237 (at 3 of 35), 258 (7/8/2021 Claim Construction Order, at 5 of 16).[5]) Notably, during prosecution of the parent application (with the same written description), Asetek amended its claims to recite a reservoir with an upper and a lower chamber and annotated FIG. 15 to show the upper and the lower chambers are compartments contained within the same "reservoir 14" as support for these features. (Ex. 5 (4/4/2011 Reply to Office Action), at 4, 6, 13-14.)



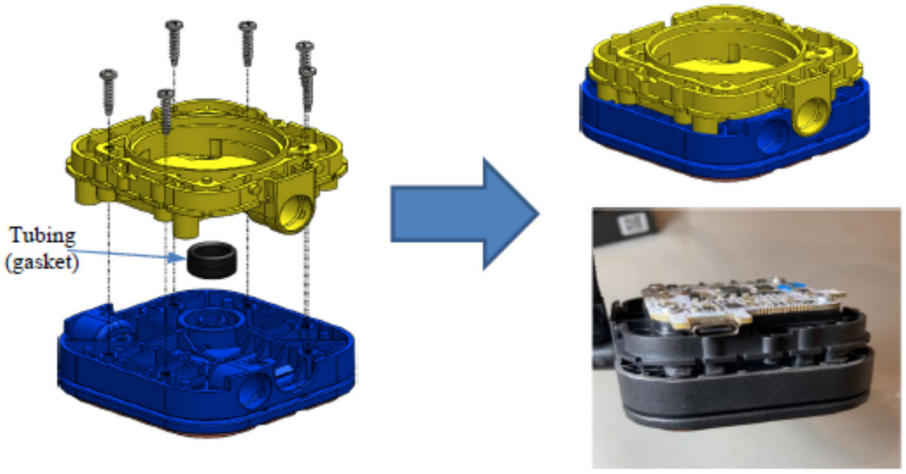
The parties stipulated, based on the prior *jury verdict*, that the "single receptacle … is divided

Notably, the claims were allowed not because the Examiner-identified prior art lacked a "reservoir," but because it did "not disclose any inlet and outlet passage to connect the upper and the lower chamber." (Ex. 6 (4/8/2011 Notice of Allowance), at 2.)

[5] The "reservoir" and "chamber" limitations appear in all the remaining asserted claims, including the Asetek patents that are stayed.

into an upper chamber and a lower chamber, with the upper chamber providing the pumping function and the lower chamber providing the thermal exchange function." (ECF No. 342 at 2 of 48.) That is, *within* its "interior space," the "single receptacle" is divided into an upper "compartment" for pumping and a lower "compartment" for thermal exchange. (*See*, *e.g.*, Ex. 8 (12/8/2021 Tuckerman Invalidity Rep.), at ¶¶ 90-91.)

By contrast, CoolIT's Tamriel design does not possess a "single receptacle" divided into an upper pump chamber and a lower thermal exchange chamber. Rather, Tamriel employs two separable receptacles connected by way of tubing (a gasket), as depicted at right. (ECF No. 342 at 17 of 48.)



D. CoolIT's claims

1. CoolIT's asserted claims all require "microchannels"

Eleven claims across CoolIT's '330, '284, and '266 patents remain. Each asserted claim recites or depends on an independent claim that recites a "plurality of [fins/walls]" defining a "corresponding plurality of microchannels." (*See* '330 patent (ECF No. 23-1), cls. 1, 12, 14; '284 patent (ECF No. 23-2), cls. 1, 15; '266 patent (ECF No. 27-4), cl. 13.) In their November 8, 2019 Joint Claim Construction and Pre-Hearing Statement, the parties stipulated that "microchannels" are "channels with widths up to 1 millimeter." (*See* ECF No. 67 at 3 of 51.)

2. Asetek's *Antarctica* sample lacks "microchannels"

Asetek identified its own "Antarctica 'Water Chill' Liquid Cooling Kit" ("*Antarctica*") as prior art to the asserted CoolIT patents in its initial invalidity contentions. In his opening report challenging validity of the asserted CoolIT patents, Dr. Tuckerman opines that the asserted claims for the '330, '284, and '266 patents are invalid over a physical sample of Asetek's *Antarctica* device, alone or in combination with other references. (*See* Ex. 9 (11/3/2021 Tuckerman Rep.), at ¶¶ 7, 65-77, 114, 135-

137.) This *Antarctica* sample includes a heat spreader plate with channels between adjacent fins that Dr. Tuckerman relies on as disclosing the "microchannels" limitation. (*See id.*, Ex. 9-A (Chart I) at 2-3, 11, 17; *id*. (Chart II), at 5-8, 26-28, 42-44; Ex. 9-B (Chart I), at 1, 10; Ex. 9-C (Chart I) at 1.) Dr. Tuckerman opined that "[t]he space between adjacent fins is about 0.9 – 1.0 mm" in *Antarctica*'s heat spreader plate but did not disclose any supporting empirical evidence. (*See* Ex. 9 (11/3/2021 Tuckerman Invalidity Rep.), at ¶ 57.) Rather, he cited to deposition testimony from Asetek's CEO, Andre Eriksen, who claimed without any corroboration that *Antarctica* had channel widths "between 0.6 and 0.8 millimeters." (Ex. 10 (8/24/2021 Eriksen Depo. Tr.), at 117:23-24.) In stark contrast, CoolIT's technical expert Dr. Himanshu Pokharna measured each channel width in *Antarctica*'s heat spreader plate, and demonstrated that the channel widths ranged from 1.18 mm to 1.25 mm. (Ex. 11 (12/8/2021 Pokharna Rebuttal Rep.), at ¶ 74.) These empirical measurements are not subject to reasonable dispute. Each *Antarctica* channel width thus exceeds the 1.0 mm required under the parties' stipulated construction for "microchannel."

3. The *Antarctica* sample does not qualify as prior art

Asetek alleges *Antarctica* is prior art by providing 2004 sales data. (*See generally* Ex. 12; *see also id.* at 6, 8) (noting no intent to rely on public use or offers for sale.) Dr. Tuckerman similarly qualifies *Antarctica* as prior art based on that sales data. (Ex. 9 (11/3/2021 Tuckerman Invalidity Rep.), at ¶54.) However, Dr. Tuckerman and Asetek did not provide any evidence linking the *Antarctica* physical sample to a version of the *Antarctica* device reported as sold in that data. To the contrary, Dr. Tuckerman admitted that he could not be sure that the sample was representative of the actual device and that he "would have no way of knowing" if the actual Antarctica product previously sold had channels one millimeter or less. (Ex. 24, (12/20/2021 Tuckerman Depo. Tr.), at 141:16-142:8.)

III. LEGAL STANDARD

A. Summary judgment of noninfringement

"The [all-limitations] rule holds that an accused product or process is not infringing unless it contains each limitation of the claim, either literally or by an equivalent." *Freedman Seating Co. v. Am. Seating Co.*, 420 F.3d 1350, 1358 (Fed. Cir. 2005) (internal citation omitted). Compliance with

the all-limitations rule is "a question of law." *Trading Techs. Int'l, Inc. v. eSpeed, Inc.*, 595 F.3d 1340, 1355 (Fed. Cir. 2010). Further, "the doctrine of equivalents is not a license to ignore or erase structure and functional limitations of the claim, limitations on which the public is entitled to rely in avoiding infringement." *Athletic Alts., Inc. v. Prince Mfg., Inc.*, 73 F.3d 1573, 1582 (Fed. Cir. 1996) (internal citation omitted); *see also London v. Carson Pirire Scott & Co.*, 946 F.2d 1534, 1538 (Fed. Cir. 1991) ("Application of the doctrine of equivalents is the exception, however, not the rule, for if the public comes to believe (or fear) that the language of patent claims can never be relied on, and that the doctrine of equivalents is simply the second prong of every infringement charge, regularly available to extend protection beyond the scope of the claims, then claims will cease to serve their intended purpose. Competitors will never know whether their actions infringe a granted patent.")

"Whether an element of the accused device is equivalent to a claim limitation depends on 'whether the substitute element matches the function, way and result of the claimed element or whether the substitute element plays a role substantially different from the claimed element. If a theory of equivalence would vitiate a claim limitation, [] then there can be no infringement under the doctrine of equivalents as a matter of law." *Tronzo v. Biomet, Inc.*, 156 F.3d 1154, 1160 (Fed. Cir. 1998) That is, a doctrine of equivalents argument "fails if it renders a claim limitation inconsequential or ineffective." *Akzo Nobel Coatings, Inc. v. DowChem. Co*., 811 F.3d 1334, 1342 (Fed. Cir. 2016).

If there is no vitiation of claim limitations, the issue of equivalency becomes a question of fact that depends on whether the patentee can "establish equivalency on a limitation-by-limitation basis by particularized testimony and linking argument as to the insubstantiality of the differences between the claimed invention and the accused device or process." *Akzo*, 811 F.3d at 1342; *accord Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 172 F.3d 1361, 1391 (Fed. Cir. 1999), *reh'g en banc granted, judgment vacated for rehearing*, 187 F.3d 1381 (Fed. Cir. 1999), *judgment vacated and remanded*, 535 U.S. 722 (2002). Because the plaintiff bears the burden of demonstrating the existence of each limitation in the accused product, if there is a lack of evidence to show an accused product contains *all* of the limitations of the patent claims, the defendant is entitled to summary judgment. *Celotex Corp. v. Catrett*, 477 U.S. 317 (1986); *Novartis Corp. v. Ben Venue Labs, Inc.*, 271 F.3d 1043, 1046 (Fed. Cir. 2001) ("Summary judgment must be granted against a party who has failed to introduce

evidence sufficient to establish the existence of an essential element of that party's case, on which the party will bear the burden of proof at trial."); *accord Flexuspine, Inc. v. Globus Med., Inc.*, 879 F.3d 1369, 1377 (Fed. Cir. 2018).

B. Summary judgment of validity

A patent is presumed valid. 35 U.S.C. § 282. A party seeking to invalidate an issued patent must prove invalidity by clear and convincing evidence, including qualifying asserted references as prior art under 35 U.S.C. § 102. *E.g., Sandt Tech., Ltd. v. Resco Metal and Plastics Corp.*, 264 F.3d 1344, 1350 (Fed. Cir. 2001). Summary judgment affirming the validity of an asserted claim is proper where the non-moving party cannot meet its burden of showing invalidity. *Cent. Admixture Pharmacy Servs., Inc. v. Advanced Cardiac Sols., P.C.*, 482 F.3d 1347, 1357-58 (Fed. Cir. 2007) (affirming summary judgment of no invalidity because no reasonable jury could find invalidity by clear and convincing evidence based on the "sketchy record").

IV. ARGUMENT

A. Summary judgment of noninfringement under Asetek's claims

1. CoolIT does not infringe the "curved blades" limitation of the '362 patent

a. Asetek's doctrine of equivalents theory vitiates the "curved" limitation and violates the all-limitations rule

The claim language indisputably requires "an impeller having ***curved*** blades." (Ex. 14 (12/30/2021 Tuckerman Depo. Tr.), at 58:19-25) (admitting that "[t]he claim language requires that the blades of the impellers have to be curved" and that "the adjective 'curved' modifies the noun 'blades'"). "Curved" describes the shape of the blades, as recognized by Asetek's own expert Dr. Tuckerman, who admitted that the word "curve ... would describe shapes that have curvature somewhere on them." (*Id*. at 263:8-14.) When asked specifically for his definition of "curved blades," Dr. Tuckerman responded as follows:

> Q. What is your definition of curved blades?
>
> A. A – okay. A definition of curved blade. ***A blade that has*** an – ***an arc to it***. It's not – ***it's not everywhere linear***.

(*Id.* at 53:5-8) (emphasis added).[6]

CoolIT straight impeller design

CoolIT's blades do not meet Dr. Tuckerman's own definition and are undisputedly not "curved." (Ex. 7 (11/03/2021 Tuckerman Infringement Rep.), at ¶¶ 290, 321) (admitting that "the blades in the impeller of the H100i Liquid Cooler [and Tamriel design] are not literally curved"). This should end the inquiry, as "curved blades" are a structural limitation and attempting to map "curved blades" onto CoolIT's admittedly non-curved blades violates the all-limitations rule. *See, e.g.*, *Athletic Alts.*, 73 F.3d 1582-83 ("the doctrine of equivalents is not a license to ignore or erase structure and functional limitations of the claim, limitations on which the public is entitled to rely in avoiding infringement"; *Sage Prods. Inc. v. Devon Indus. Inc.*, 126 F.3d 1420, 1425 (Fed. Cir. 1997) (affirming summary judgment of no infringement and noting that, if the plaintiff desired broad patent protection, "it could have sought claims with fewer structural encumbrances"); *Tronzo*, 156 F.3d at 1160 (infringement by "a hemispherical cup" under the doctrine of equivalents "would vitiate the limitation requiring that the cup have a 'generally conical outer surface.'")

Nevertheless, Asetek ignores the claim language expressly requiring "an impeller having curved blades" and, in an attempt to show equivalency, proposes a hypothetical construction of "curved blades" to be equivalent to what it calls "non-radial blades." (Ex. 7 (11/3/2021 Tuckerman Infringement Rep.), at ¶ 292) ("in a hypothetical claim covering the equivalents of an 'impeller having curved blades,' this claim term would be written as an 'impeller having non-radial blades,' or an 'impeller having curved blades or other non-radial blades that perform like curved blades'"). This hypothetical construction—which finds no support in the intrinsic record—violates the all-limitations rule by rendering inconsequential the claim requirement that the impeller blades be "*curved*." *See, e.g., Akzo*, 811 F.3d at 1342 (an argument under the doctrine of equivalents "fails if it renders a claim

[6] Further, Dr. Tuckerman distinguished "curved blades" from "straight blades" emphasizing that "'curved' and 'straight' certainly mean different things, for -- for sure." *Id.* at 52:22-53:3.

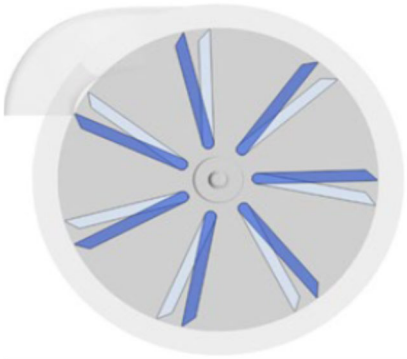
limitation inconsequential or ineffective"). Indeed, Dr. Tuckerman conceded that the terms "curved blades" and "non-radial blades" do not have the same scope:

> Q. So the terms "curved blades" and "nonradial blades" do not have the same scope, correct?
>
> A. A curve, to me, implies that there is, you know, ***some nonlinearity to the shape of the blade*** so that it, you know, has an arc to it. ***So they're not identical terms, no***.

(Ex. 14 (12/30/2021 Tuckerman Depo. Tr.), at 56:21-57:4) (emphasis added; objection omitted). Dr. Tuckerman further stated that ***curved blades are "a subset of the class of nonradial blades."*** (*Id.* at 56:14-20 (emphasis added).) Without agreeing to this interpretation, but accepting Dr. Tuckerman's opinion for purposes of this motion, even his testimony confirms that "curved blades" and "non-radial blades" do not have equivalent scope.

Asetek's attempt to rewrite "curved blades" to cover CoolIT's "non-radial blades," even though they have no "curvature" or "arc," is nonsensical. Had Asetek intended to cover all non-radial blades, it should have drafted its claims to recite "non-radial blades" rather than "curved blades." Without any supporting evidence, Asetek argues that "straight impellers are generally radial," but even assuming that is true (which it is not), it does *not* follow that "non-radial" blades suddenly become "curved blades." (Ex. 7 (11/3/2021 Tuckerman Infringement Rep.), at ¶ 292.) This is because, according to Asetek's expert, the difference between radial and non-radial blades hinges on whether "the impeller blades are perpendicular to the axis of rotation," *without* any requirement the blades have any "curvature" or "arc." (*See id.*; *see also* (Ex. 15 (11/3/2021 Stein Rep.), at ¶ 13 (providing a comparison (excerpt reproduced on the right) between non-radial and radial blades).)

Non-radial blades (grey) according to Asetek's expert



Radial blades (blue) according to Asetek's expert

That is, Asetek impermissibly reads out its own "curved" requirement of the claims by rewriting the limitation with a

different criterion for infringement / non-infringement – "non-radial" / "radial" – that has absolutely nothing to do with "curvature." Because Asetek's equivalency argument reads out the structural requirement of "curved blades," for this reason alone, the Court should grant summary judgment of non-infringement as a matter of law on claims 17 and 19 of the '362 patent. *See Network Appliance, Inc. v. Bluearc. Corp.*, No. C 03–5665 MHP, 2005 WL 1530222, at *3, 9-10 (N.D. Cal. June 27, 2005) ("[H]aving patented an invention that includes such structural limitations, plaintiff cannot rely on the 'functional interchangeability' of substantially different structures in order to sweep any computer architecture that is functionally equivalent to the invention into the scope of the patent's claims.")

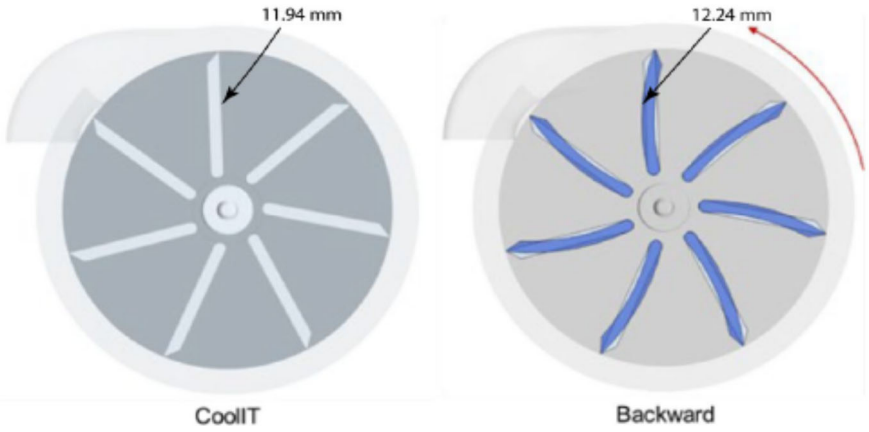
b. Asetek provides no evidence to show CoolIT's straight blades drive liquid in substantially the same "way" as do the curved blades

Asetek's argument also fails at least the "way" test in the function-way-result analysis under the doctrine of equivalents. This is because, even assuming "curved" and "straight" blades perform substantially the same function of driving cooling liquid, Asetek provides zero evidence that they do so in substantially the same way. In fact, the only available evidence in the record shows the opposite – that curved blades and straight blades drive liquid in different ways. As shown below right, this is at least because liquid, if driven along curved blades (blue) between two points, undisputedly travels a longer distance than if driven along straight blades (red). (Ex. 3 (12/8/2021 Abraham Non-Infringement Rep.), at ¶ 104) ("the straight line is the shortest distance between the two points, while a curved line is not. This is as common sense as it can be"). Dr. Stein, agrees:

> Q. … Dr. Stein, if you compare the length of each backward curved blades, would you agree that the length of the backward curved blades is longer than that of CoolIT's blades?
>
> THE WITNESS: They start at pretty much the same point. They end at pretty much the same point. One goes a straight line. The other one curves. Of course, if you go a curved line from point A to B -- and we're not talking about Einsteinian geometries -- then, yes, ***the curved line will be slightly longer than the straight one.*** It's a triviality. However, ***if you make them the same length, they wouldn't reach the circumference; and, you would have a big clearance. And this will,***

> ***of course, have a very, very <u>different</u> effect on the results. You need to have the same clearance***.

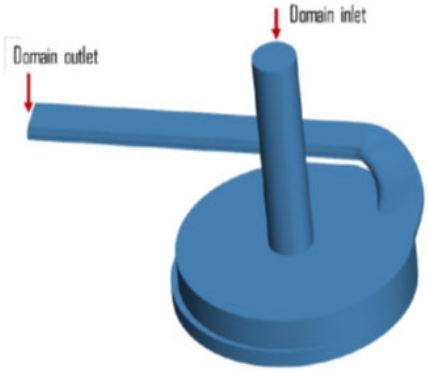
(Ex. 16 (1/11/2021 Stein Depo. Tr.), at 109:8-110:4) (emphasis added; objection omitted); *see also* (Ex. 3 (12/8/2021 Abraham Non-Infringement Rep.), at ¶ 147 (showing the allegedly equivalent "[b]ackward" curved blades (reproduced below right in blue) are longer in length than the purported CoolIT blades (reproduced below left)).) Asetek's expert admitted curved and straight blades would inevitably drive the liquid in different ways: either the liquid must travel a ***longer*** distance if driven by curved blades than if driven by straight blades, or there will be a "big clearance" that will "of course, have a very, very ***different*** effect on the results." (Ex. 16 (1/11/2021 Stein Depo. Tr.), at 109:8-110:4.) (emphasis added). Either way, curved blades and straight blades drive the liquid differently, either in "distance" or in "clearance." Asetek has not provided, nor can it provide, any evidence to the contrary, for this is "as common sense as it can be." (Ex. 3 (12/8/2021 Abraham Non-Infringement Rep.), at ¶ 104.) Thus, Asetek's doctrine-of-equivalents argument fails for lack of evidence to satisfy the "way" test in the function-way-result analysis, warranting summary judgment. *See Novartis*, 271 F.3d at 1046.



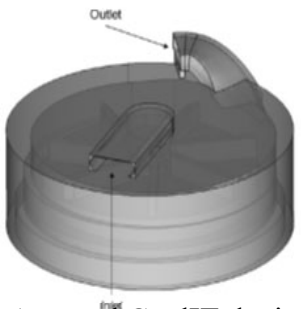
c. Asetek provides no evidence to show CoolIT's straight blades produce substantially the same "result" as do the curved blades.

Asetek's argument also fails the "result" test in the function-way-result analysis under the doctrine of equivalents. This is because the results Asetek's experts relied upon to purportedly show the equivalency of CoolIT's blades admittedly were *not* based on CoolIT's products. According to Dr. Stein, "[w]e do *not* claim to simulate CoolIT's device." (Ex. 16 (1/11/2022 Stein Depo. Tr.), at 120:8-9) (emphasis added)). Indeed, Dr. Stein's report admits the simulated "CoolIT device" (below left) is different from the accused CoolIT device (below right). (*Compare* Ex. 15 (11/3/2021 Stein

Rep.), at ¶ 14 (device on left, admittedly simulated by Dr. Stein to generate the alleged doctrine of equivalents results) *with id.*, at ¶ 12 (device on right, understood by Dr. Stein as partially representing the geometries of the accused CoolIT products).)

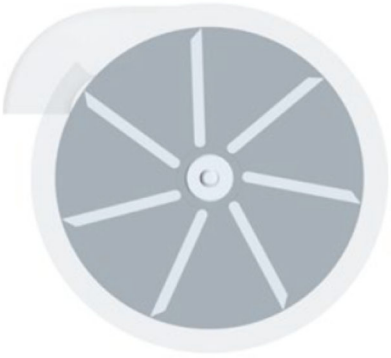


Device admittedly simulated by Asetek's expert

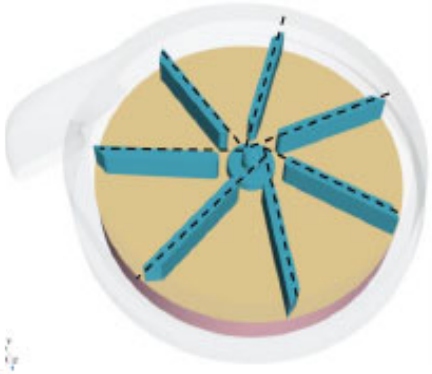


Accused CoolIT device according to Asetek's expert

Further, the impellers simulated by Dr. Stein (below left) and analyzed by Dr. Tuckerman (below middle) are demonstratively and indisputably different from the actual CoolIT impeller (below right). (*Compare* Ex. 15 (11/3/2021 Stein Rep.), at ¶ 13 (below left, impeller simulated by Dr. Stein) and Ex. 7 (11/3/2021 Tuckerman Infringement Rep.), at ¶ 291 (below middle, impeller analyzed by Dr. Tuckerman) *with* Ex. 7 (11/3/2021 Tuckerman Infringement Rep.), at ¶ 310 (below right, annotated photo of actual CoolIT impeller).) As shown, at a minimum, the actual CoolIT impeller (below right) has an opening (annotated in red) alongside each of the seven blades, through which the liquid can pass, while the purported "CoolIT" impellers simulated by Dr. Stein (below left) and analyzed by Dr. Tuckerman (below middle) have no opening alongside any of its blades.



Impeller simulated by Dr. Stein (Asetek's expert)



Impeller analyzed by Dr. Tuckerman (Asetek's expert)

Actual CoolIT Impeller (red annotation added)

Therefore, Asetek cannot show that the CoolIT products achieve substantially the same result because Asetek has *zero* evidence of how the *actual* CoolIT products perform. To the contrary, the

only available evidence in the record, provides comparisons between the performances of *actual* curved blades and *actual* straight blades in CoolIT's devices cited in CoolIT's expert report, which demonstrates pronounced differences in their "results," supporting *non*-equivalency. (Ex. 3 (12/8/2021 Abraham Non-Infringement Rep.), at ¶¶149-150.)

For example, in a comparison between the actual curved and straight blades, "[t]he curved blades produced higher pressure [*i.e.*, "P"] under the same flow rates [*i.e.*, "Q"]." (*Id.* at ¶149.) Further, "the straight impeller tends to consume significantly more power, especially when the flow rate is high. (*Id.*)

In sum, the fictitious impeller Dr. Stein simulated, which is admittedly *different* from the accused device, tells the Court nothing about how CoolIT's actual impeller works. The actual CoolIT products were undisputedly never simulated nor otherwise tested by Asetek. Asetek has not provided, nor can it provide, any evidentiary "result" of the accused CoolIT impeller with straight blades that is "substantially the same" as that of any impeller with curved blades. Thus, Asetek's doctrine of equivalents argument fails for lack of evidence to satisfy the "result" in the function-way-result analysis, further warranting summary judgment. *See Novartis*, 271 F.3d at 1050 (affirming district court summary judgment order where the plaintiff's expert had performed a computer simulation and where "[the plaintiff's] *failure to connect the* ***computer model*** *to* [the defendant's] ***commercial process*** entitled [the defendant] to summary judgment") (emphasis added); *see also J & M Corp. v. Harely-Davidson, Inc.*, 269, F.3d 1360, 1365-66, (Fed. Cir. 2001) (affirming summary judgment of no infringement under the doctrine of equivalents where court had determined that evidence for infringement by equivalents "was either inadmissible or defective").

d. Asetek provides no evidence to show CoolIT's blades and curved blades are insubstantially different

For the same reason above – *i.e.*, the curved blades and the straight blades drive the liquid differently, either in "distance" or in "clearance," and Dr. Stein never simulated the actually accused CoolIT products or impeller with straight blades – Asetek has not provided, nor can it provide, any evidence to show CoolIT's blades are insubstantially different from curved blades. Thus, Asetek's doctrine of equivalents infringement theory also fails the "insubstantial difference" test.

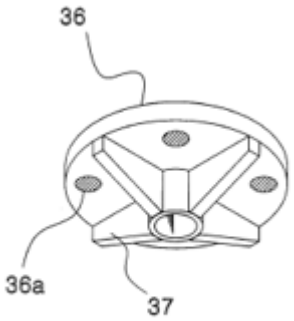
e. Asetek also violates the ensnarement doctrine

A separate and independent ground for granting summary judgment is Asetek's ensnarement of prior art. *See Jang v. Boston Sci. Corp*., 872 F.3d 1275, 1288 (Fed. Cir. 2017) ("ensnarement is a legal question for the district court to decide").

During its prior trial against CMI USA, Asetek distinguished its purported invention from the Ryu prior art reference based on the limitation of "an impeller having curved blades":

> Q. You have also said that the Ryu does not teach an impeller having curved blades. Do you mind explaining to the jury?
>
> A. Yeah. So here's the impeller in Ryu. And again, it – Ryu is an invention that has a very specific unique pumping element. It's got this -- this impeller here, which has these straight trapezoidal blades. …

(Ex. 17 (*Asetek v. CMI*, N.D. Cal. No. 4:13-cv-00457-JST, 2014 Trial Tr.), at 1509:16-24.) Ryu's straight blades are shown on the right. Further, the court in the *CMI USA* case confirmed in its Finding of Fact and Conclusions of Law that "Ryu discloses straight-edged blades" whereas the limitation requires an impeller having curved blades. (Ex. 18 (*Asetek v. CMI*, N.D. Cal. No. 4:13-cv-00457-JST, ECF 249, 4/21/2015, Findings of Fact and Conclusions of Law) at 20, 23.) Having distinguished prior art based on the *shape* of straight blades v. curved blades, Asetek should not now be allowed to argue that an impeller having straight blades is equivalent to "an impeller having curved blades."



(c)

2. Additionally, Summary judgment is warranted because Tamriel does not infringe the "reservoir" limitation of the '362 patent as a matter of law[7]

a. Collateral estoppel precludes Asetek from accusing Tamriel of infringing the "single receptacle" limitation in "reservoir"

The absence of curved blades is enough to support summary judgment of noninfringement. CoolIT's Tamriel product also does not infringe for the independent reason that its "reservoir" is not a "single receptacle." Asetek is collaterally estopped from including a second receptacle when

[7] Tamriel also has straight blades, but its non-infringement of the "reservoir" limitation provides an additional ground for summary judgment, *which applies to all of the claims in all of Asetek's patents, including the ones stayed*. Thus, a resolution of the "reservoir" issue will eliminate the possible need for any and all future litigation on Tamriel.

accusing Tamriel of infringing the limitation of "a reservoir," because that claim term can only include a "*single* receptacle." Asetek litigated *and won* a judgment that the claimed "reservoir" includes no second receptacle, and is estopped from trying to change that now. *Ohio Willow Wood Co. v. Alps S., LLC*, 735 F.3d 1333, 1342 (Fed. Cir. 2013). In upholding the validity of the '362 patent, Asetek obtained a jury verdict distinguishing the '362 patent from prior art on this exact limitation:

> [T]he claimed "reservoir" in Asetek's invention is a single receptacle that is *divided* into an upper chamber and a lower chamber, with the upper chamber providing the pumping function and the lower chamber providing the thermal exchange function.

(Ex. 18 (*Asetek v. CMI*, N.D. Cal. No. 4:13-cv-00457-JST, ECF 249, 4/21/2015 Findings of Fact and Conclusions of Law) at 5 of 29 (emphasis added).) At trial, Asetek's expert identified a key characteristic that, he believed, indicated the presence of separable receptacles respectively containing the claimed upper and lower chambers that would fall *outside* the scope of the claims. He explained that practicing the '362 patent requires the two chambers to be incapable of being physically separated, as they could not function as independent chambers:

> Q. The – **in Asetek's patented design, the two chambers – the pump chamber and the thermal-exchange chamber – cannot be physically separated. Right?**
>
> A. **That's correct.** If you tried to take the upper chamber away from the lower chamber, you'd have two nonfunctional devices, or one functional and one nonfunctional device.
>
> Q. **And the only part of the reservoir in Asetek's patented design that can be separated is just the heat-exchange interface?**
>
> A. **The heat-exchanging interface. That's correct.**

(Ex. 17 (*Asetek v. CMI*, N.D. Cal. No. 4:13-cv-00457-JST, 2014 Trial Tr.) at 1508:10-19 (emphasis added).) Asetek, therefore, is bound by the requirement that the "upper chamber" and "lower chamber" in the '362 patent must be met through the division of the *same* single receptacle, as opposed to inclusion of a second, physically separable receptacle.

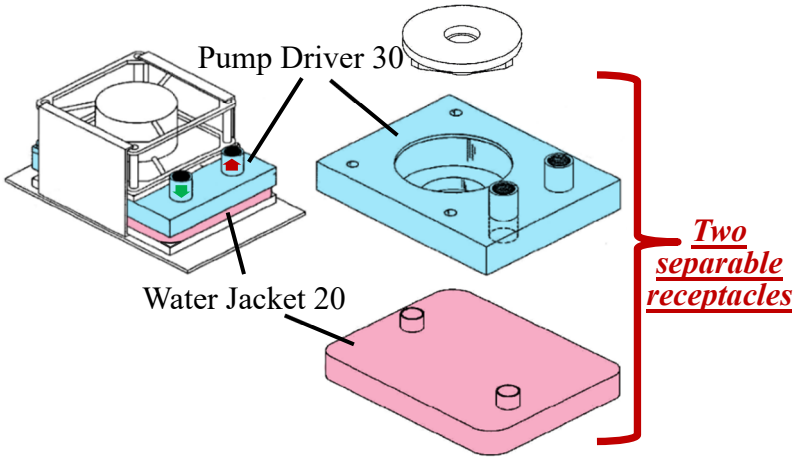
Indeed, the parties *agreed* that a reservoir is *a single receptacle defining a fluid flow path*. Asetek previously litigated and won exactly this construction in another case: "Asetek ask[ed] the [c]ourt to construe reservoir as a 'single receptacle' to provide clarification that the claimed reservoir is a single receptacle and **to avoid any arguments that the reservoir was formed by connecting two receptacles**. … It is apparent from the words of the claim that the cooling liquid passes through

the reservoir, and is not simply retained in it. Therefore, the [c]ourt adopt[ed] Asetek's construction of reservoir as 'single receptacle defining a fluid flow path.'" (Ex. 19 (*Asia Vital Components v. Asetek*, N.D. Cal. No. 4:16-cv-07160, ECF No. 105, 1/17/18 Claim Construction Order by J. Tigar), at 6-7 (emphasis added).) Asetek and CoolIT then stipulated to this construction for "reservoir," and an accompanying construction of "chamber" as a "compartment within the reservoir," in this case. (ECF No. 67 (11/08/19 Joint Claim Construction Statement), at 2-3 of 51; ECF No. 237 (Join Claim Construction Statement), at 3 of 35; ECF No. 258 (Claim Construction Order by J. Chen), at 5 of 16.)

This was likewise the claim construction position Asetek took at the 2014 trial against CMI USA. According to Asetek's counsel, Asetek's "real invention" has "what's called a 'reservoir' [that is] ***subdivided*** into two chambers, kind of like your heart is ***divided*** into different chambers," which he also referred to as "the heart of the invention in both patents." (Ex. 17 (*Asetek v. CMI*, N.D. Cal. No. 4:13-cv-00457-JST, 2014 Trial Tr.), at 31:10-17, 226:8-11, 228:6-12, 231:5-10 (emphasis added).) Asetek's technical expert, Dr. Tilton, echoed this requirement on direct examination:

> Q. And is it your understanding that the Court's claim-construction Order stated that **the claim term "reservoir" (singular), and not "reservoirs" (plural), indicates that a reservoir is only *one receptacle*, and not many**?
>
> A. **Yes. That's my understanding. I thought that was very clear from the claim-construction Order.**

(*Id.* at 609:25-611:4.) Asetek advanced this construction in order to avoid the "Ryu" prior art (Ex. 20 (Korean Utility Model No. 20-0314041), reproduced and annotated below), in which the pump chamber and the thermal exchange chamber were *two* separate receptacles connected together. As shown, Ryu has an upper/pump chamber within one separate receptacle (Ryu calls it "Pump Driver 30," shown in blue) an a lower/thermal exchange chamber within a second distinct receptacle (Ryu calls it "Water Jacket 20," shown in pink). (Ex. 17 (*Asetek v.*



CMI, N.D. Cal. No. 4:13-cv-00457-JST, 2014 Trial Tr.), at 609:25-611:4.)

Although the cooling system in Ryu allows water to pass between the upper/pump chamber and the lower/thermal exchange chamber in the assembled product, each chamber nevertheless is a compartment contained within a separable receptacle. Asetek's expert explained how, in his view, the separable receptacles in Ryu were different from the single receptacle in the patents-in-suit:

> Q. **The pump driver 30 and the water jacket 20 in Ryu – those are two separate receptacles connected together. Correct?**
>
> A. **That's correct.**
>
> Q. And the two separate receptacles connected together – no matter what type of connection it is -- fastening, lamination -- they do not become a single receptacle. Correct?
>
> A. I don't believe that that's what's taught in Ryu.

(*Id*. at 1444:13-25 (emphasis added).) He later repeated the point (*id.* at 1507:2-9 (emphasis added)):

> Q. And **two receptacles coupled together does not become a single reservoir**, as defined in the claims of the Asetek patents. Correct?
>
> A. **That's my opinion. I don't believe it does.**
>
> Q. And is that because -- I mean, **the Court construed the term "reservoir" to be a single receptacle and/or a single reservoir that has two chambers *inside it***. Right?
>
> A. **That's correct.**

The jury credited this testimony and rejected the invalidity arguments. The verdict form (notably, originally proposed by Asetek) asked the jury "[w]hat difference, if any, existed between the claimed invention and the prior art at the time of the claimed invention." (Ex. 21 (*Asetek v. CMI*, N.D. Cal. No. 4:13-cv-00457-JST, ECF 219, Jury Verdict) at 4:1-14.) The jury responded that "the claimed 'reservoir' in Asetek's invention *is a **single receptacle** that is divided into an upper chamber and lower chamber* with the upper chamber providing the pumping function and the lower chamber providing the thermal exchange function." (*Id*., at 4:5-8 (emphasis added); *compare id.*, at 4:1-8 *with* Ex. 22 (*Asetek v. CMI*, N.D. Cal Case No. 4:13-cv-00457-JST, ECF No. 204, Asetek's Revised Proposed Verdict Form), at 3:26-4:7.) The Federal Circuit specifically cited these findings in affirming the jury's finding of patent validity. *Asetek Danmark A/S v. CMI USA Inc.*, 852 F.3d 1352,

1357-58 (Fed. Cir. 2017) ("the jury found that the claimed liquid-cooling systems differ from the prior art because… *the 'reservoir'* ***is a 'single receptacle*** *that is divided into an upper chamber and a lower chamber*'") (emphasis added).

As is clear from the prior cases, the '362 patent claims an upper chamber and a lower chamber by dividing the "single receptacle" as opposed to connecting one detachable receptacle containing the upper chamber and another detachable receptacle containing the lower chamber. Asetek is collaterally estopped from capturing the later scope given the judgment it won to sustain the patent's validity. *Aspex Eyewear, Inc. v. Zenni Optical LLC*, 713 F.3d 1377, 1380 (Fed. Cir. 2013) (collateral estoppel "precludes a plaintiff from relitigating identical issues by merely switching adversaries") (cleaned up). Here, all four elements of collateral estoppel are met: *(1)* the issue of whether the claimed upper chamber and lower chamber should be divided compartments contained within the reservoir's "single receptacle" is identical, *(2)* the issue was actually litigated at the 2014 CMI USA trial, *(3)* Asetek had a full and fair opportunity to litigate it; and *(4)* it was necessarily determined by the jury to distinguish Ryu and thus uphold the validity of the patents, at Asetek's urging. ECF No. 351 at 12.

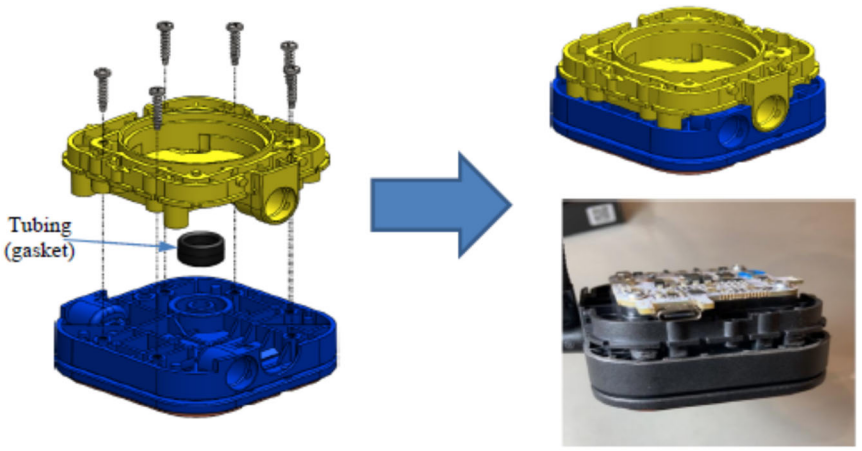
Because it is undisputed that Tamriel includes a second receptacle detachably connected to a first receptacle, Tamriel cannot satisfy the limitation of a "reservoir" that is "*a* ***single receptacle*** *that is divided into an upper chamber and lower chamber* with the upper chamber providing the pumping function and the lower chamber providing the thermal exchange function." Collateral estoppel requires a finding of non-infringement.

b. Judicial estoppel requires dismissal of Asetek's infringement claims against Tamriel.

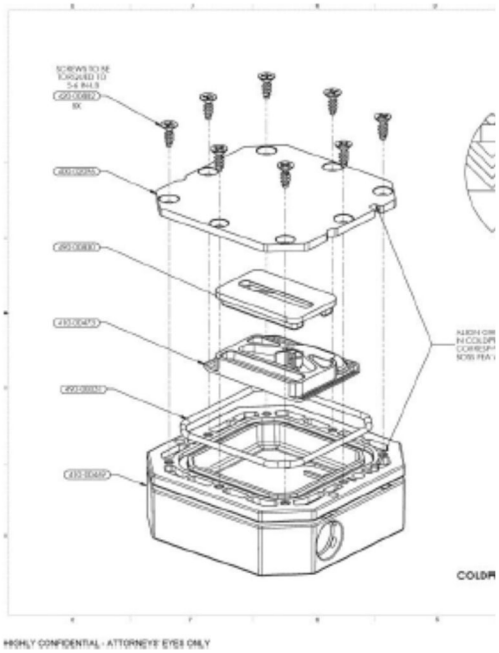
Asetek should be judicially estopped from including two *separable* receptacles *screwed together* when accusing the Tamriel products of infringing the "reservoir" limitation. Indeed, Asetek told the Court last October that "Asetek is not going to take the position that two separate receptacles screwed together can form a single receptacle." (Ex. 23 (10/7/21 Hearing Tr.), at 29-30.)

The judicial estoppel doctrine requires that (1) a party took a "clearly inconsistent" position with the one now expressed, (2) the earlier position was accepted by the court to which it was presented, and (3) the party would derive an unfair advantage or impose an unfair detriment on the

opposing party if not estopped. *See New Hampshire v. Maine*, 532 U.S. 742, 750-51 (2001). Regarding the first element, as this Court has pointed out, "should Asetek now argue in the instant case that a reservoir encompasses multiple receptacles like it did at the July 27, 2021 *CMI USA Inc.* hearing, this argument would appear to be inconsistent with its previous argument in *CMI USA Inc.* [trial] that a reservoir limitation requires a single receptacle." (ECF No. 351 at 14 of 15.) By accusing the two receptacles screwed together in Tamriel (above right), Asetek is doing exactly that. This is because Tamriel products do not possess a "single receptacle" divided into two compartments *within it*, as required by the prior judgment Asetek won, the parties' stipulation, and the Court-ordered construction. Rather, Tamriel employs two receptacles screwed together and connected by way of tubing (gasket). (ECF No. 342 at 17 of 48.) That is no accident; having experienced Asetek's litigiousness, CoolIT deliberately redesigned its products to steer even further away from Asetek's claims.



Comparing Asetek's allegations on how CoolIT's products contain a "removably coupled" heat exchanging interface (right, with device inverted) to how the two receptacles in Tamriel are assembled (above) further demonstrates Asetek is taking inconsistent positions. If Asetek can allege that the heat exchange interface and the lower chamber are "removably coupled," then the two receptacles in the Tamriel products must also be "removably coupled." Asetek's allegation on the heat exchanging interface being removably coupled is inconsistent with the allegation that Tamriel products



COOLIT0016989 (Tamriel I)

contain a "single receptacle." Thus the first element for judicial estoppel is met.

The second and third elements of judicial estoppel also are met. As this Court observed, "Asetek's single receptacle reservoir limitation was accepted by the court in *CMI USA Inc.*, as it was a finding made by the jury and relied upon by the Federal Circuit when affirming the decision. This satisfies the second element of judicial estoppel. As to the last element, Asetek's new arguably contradictory definition of reservoir limitation would be unfair to Defendants, who are relying on this very distinction to further their noninfringement arguments." (ECF No. 351 at 14 of 15.) Because all three elements are squarely met, summary judgment of non-infringement of the single-receptacle "reservoir" limitation by the Tamriel products should be granted.

c. Asetek's doctrine-of-equivalents theory vitiates the "single receptacle" requirement, fails the function, way, result test, and cannot show insubstantial difference

Asetek's assertion that "reservoir" is satisfied under the doctrine of equivalents should be precluded and summary judgment should be granted. Its hypothetical construction of "reservoir" as "reservoir formed by one or more housings" or "single receptacle formed by one or more housings" vitiates the "single receptacle" limitation and is thus impermissible. *See, e.g., Athletic Alts.*, 73 F.3d 1582-83 ("the doctrine of equivalents is not a license to ignore or erase structure and functional limitations of the claim, limitations on which the public is entitled to rely in avoiding infringement"); *Choons Design Inc. v. Tristar Prods., Inc.*, No. 14-10848, 2020 WL 1362844, at *5 (E.D. Mich. Mar. 23, 2020) (granting summary judgment of non-infringement under the doctrine of equivalents where "the clear and natural language of the claim requires a *single opening* … [whereas the] accused [product] includes *two separate openings* … applying the doctrine of equivalents would entirely vitiate the 'an opening'/'single opening claim element . . . ."") (emphasis added). This is because the "housings" in Asetek's hypothetical claims are no different from "receptacles" even according to Asetek's own expert. Dr. Tuckerman alleges that "[t]he reservoir of the Tamriel I, formed by the two mated and interconnected subcomponents/***housings***, also operates in substantially the same way and generates substantially the same result as a reservoir formed by a single ***housing***." (Ex. 7 (11/3/2021 Tuckerman Infringement Rep.), at ¶ 138 (emphasis added).) That is, Dr. Tuckerman deems the "single

receptacle" of the "reservoir" as the "single ***housing***."[8] (*Id.*) It follows that Asetek's hypothetical "reservoir" that includes more than a "single" receptacle or housing violates the all-limitations rule.

It should also be noted that the way of dividing the "reservoir" into the upper and lower chambers *within only **one** single receptacle*, is, by definition, different from connecting ***two*** separable receptacles by gasket-tubing. This is because the fluid coupling between the upper and lower chambers both contained within the single receptacle does *not* go through any connection exposed to the outside of the closed loop with risks of leakage. In contrast, Tamriel's two chambers respectively contained in two separable receptacles are fluidly coupled through exposed connections that may leak liquid to the outside of the loop and thus requires, additionally, gasket-tubing to seal the connections, just like Ryu. (*See* Ex. 8 (12/8/2021 Tuckerman Rep.), at ¶ 101.) ("Ryu acknowledges that there may be leakage between pump driver 30 and water jacket 30, and suggests that a waterproof gasket may be used around the connecting portion between pump driving unit 30 and water jacket 20 to prevent suck leakage.").) Such additional leakage-prevention mechanism is not required if the two chambers are *divided from within the one and only "single receptacle."* (*See* Ex. 3 (12/8/2021 Abraham Rep.), at ¶ 259) ("[T]he two separable chambers need to be connected via tubing (gasket), which creates at least two connections that have leaking risks: the connection between the upper/pump chamber and the tubing (gasket), and the connection between the tubing (gasket) and the lower/thermal exchange chamber. These are the connections that Asetek has repeatedly touted that its purported invention with a single-receptacle 'reservoir' would eliminate and would thus increase reliability over prior art.") The result is also different for the same reason: the single receptacle has no risk of leakage between the two chambers, while Tamriel has such leakage risks due to the possible failure of the additional gasket-tubing connections. That is, Asetek's infringement theory under the doctrine of equivalents fails both the "way" and the "result" tests under the function-way-result analysis, and similarly cannot show insubstantial difference.

[8] Indeed, Asetek's own patents use "reservoir" and "reservoir housing" interchangeably. (*Compare, e.g.*, '362 patent at 8:43-44 (reciting "reservoir housing 14") *with* 9:58 (reciting "reservoir 14").

B. Summary judgment of validity over *Antarctica* under CoolIT's claims is warranted because Asetek presents no evidence that an *Antarctica* product on sale prior to August 9, 2007 had "microchannels"

Summary judgment should be granted on Asetek's *Antarctica*-based prior art invalidity theories because Asetek presents no evidence that its sample (1) has the claimed "microchannels" or (2) that such a product was on-sale before the August 9, 2007 priority date for the CoolIT patents. CoolIT's uncontested evidence shows the *Antarctica* sample's channel widths exceed a millimeter.

1. Asetek provides no evidence that the *Antarctica* sample's heat spreader plate has "microchannels"

During his June 25, 2021 inspection of the *Antarctica* sample, CoolIT's expert used electronic vernier calipers to determine the channel widths ranged from 1.18 mm to 1.25 mm between fins—all exceeding the 1.0 mm required for "**microchannels**." (*See* Ex. 11 (12/8/2021 Pokharna Rebuttal Rep.), at ¶ 74.) Dr. Pokharna recorded his measurements in videos and photographs that he included in his rebuttal report and CoolIT produced to Asetek during fact discovery. Dr. Tuckerman's invalidity report did not contest this evidence.

Rather, Dr. Tuckerman asserts in his report the *Antarctica* sample includes "**microchannels**" by citing to Mr. Eriksen's uncorroborated deposition testimony. (Ex. 9 (11/3/2021 Tuckerman Invalidity Rep.), at ¶57.) He admitted his report lacks evidence showing he measured the width of the heat spreader plate channels, let alone his methodology for doing so. (Ex. 24 (12/20/2021 Tuckerman Depo. Tr.), at 138:17-20.) That is because Dr. Tuckerman never recorded any measurements. (*Id*. at 138:14-16; Ex. 13 (3/18/2022 Tuckerman Depo. Tr.), at 14:23-15:3.) He claims he did not need to because his "readings were close enough" when combined with Mr. Eriksen's testimony. (Ex. 24 (12/20/2021 Tuckerman Depo. Tr.), 138:17-22. Further, Dr. Tuckerman never talked to Mr. Eriksen or anyone at Asetek in preparing his report. (*Id*. at 141:2-4; Ex. 25 (12/22/2021 Tuckerman Depo. Tr.), at 13:1-3.) He just relied on speculative hearsay, acknowledging that Mr. Eriksen stated that his testimony was a "best guess." (Ex. 24 (12/20/2021 Tuckerman Depo. Tr.), 140:24-141:14; *see also* Ex. 10 (8/24/2021 Eriksen Depo. Tr.), 117:17-25 (admitting that he did not recall the *Antarctica* channel widths).) Dr. Tuckerman's uncorroborated "word" is insufficient to carry Asetek's burden under *Celotex*. *See Schumer v. Lab. Comp. Sys., Inc.*, 308 F.3d 1304, 1316 (Fed. Cir. 2002) (noting

that "testimony is insufficient if it is merely conclusory"); *Novartis*, 271 F.3d at 1050-51 (noting that an expert must set forth an "explicit factual foundation" for his opinions); *see also TechSearch, L.L.C. v. Intel Corp.*, 286 F.3d 1360, 1371 (Fed. Cir. 2002) ("A party may not overcome a grant of summary judgment by merely offering conclusory statements"); *accord Invitrogen Corp. v. Clontech Labs., Inc.*, 429 F.3d 1052, 1080 (Fed. Cir. 2005); *Theis v. Graco, Inc.*, 763 F. App'x 641, 641-42 (9th Cir. 2019). Summary judgment of validity is warranted with respect to the *Antarctica*-based invalidity theories.

Asetek belatedly attempted to add a picture of the first page of an alleged "machining document" written in Danish into the record (Exhibit 275) for the first time at Dr. Tuckerman's deposition to show *Antarctica* allegedly has "**microchannels**."[9] But this document is not competent evidence to support the assertions Dr. Tuckerman made in his report. Dr. Tuckerman never identified this document in his report, and he admitted that he does not rely on it for his opinions. (Ex. 13 (3/18/2022 Tuckerman Depo Tr.), at 29:16-30:13,.) Ex. 26 (Materials Considered)). This makes sense, as Asetek's counsel only provided him with a JPEG of the image shown in Exhibit 275 after he submitted his report. (*Id.*, at 17:7-21, 20:25-22:7.) In fact, Dr. Tuckerman necessarily relied solely on counsel's representations that the tool shown in Exhibit 275 was used to machine grooves in *Antarctica*'s heat spreader plate because (1) he did not speak to anyone at Asetek to confirm what the materials depicted were and (2) he is unable to independently verify what the "machining document" says—he was not provided the document, he does not speak or read Danish, and he never had the document translated. (Ex. 25 (12/22/2021 Tuckerman Depo. Tr.), at 13:1-13, Ex. 13 (3/18/2022 Tuckerman Depo Tr.), at 18:22-19:2, 22:4-16, 24:20-25:6.) There is no way Dr. Tuckerman can contextualize this image without assuming representations from Asetek's counsel as true, making Dr. Tuckerman's opinion pure attorney argument.

2. Asetek presents no evidence demonstrating the *Antarctica* physical sample is representative of the *Antarctica* product on sale before August 9, 2007

Asetek also offers no evidence qualifying its physical sample as prior art. The parties never

[9] Exhibit 275 appears to show calipers clasping a blade with a "0.93 mm" reading, above an internal Asetek document written in Danish. None of these materials were produced during fact or expert discovery. Asetek's counsel introduced the photograph for the first time during redirect. This exhibit is the subject of one of CoolIT's motions to strike.

stipulated that the physical sample represented an *Antarctica* device on sale before August 9, 2007. Asetek did not produce evidence showing when the sample was manufactured, what version of *Antarctica* the sample is, whether that version was sold in 2004, or whether the version had even been approved for sale. Asetek's priority evidence appears limited to a single spreadsheet of sales data that lists multiple versions of *Antarctica* the sales are linked to, but without clear indicia linking those versions to the specific model for the physical sample it relies on. (*See generally* Ex. 12.)

Dr. Tuckerman could not confirm that the sample he inspected and relied on in his report was a version that was sold prior to August 9, 2007. (Ex. 24 (12/20/2021 Tuckerman Depo. Tr.), at 128:15-22.) While he testified that he was unaware of multiple generations of *Antarctica*, *id*. 129:20-22, he also admitted the *Antarctica* shown in the user manuals[10] he relied on in his report differed in at least one material respect with the physical sample he inspected. (*Id*., at 134:5-18.) Without prompting, Dr. Tuckerman cast doubt on whether the *Antarctica* sample he relied on was the same model that was on sale in 2004:

> A. **And I'll also mention I don't know that the device I got is representative**. I mean, you know, there is manufacturing variations. So, you know, this is one sample. **Why did they have the sample; maybe it was a reject they happened to have lying around out of spec. I just don't know**. You know, I only know what I measured.
>
> Q. Right. There is no way for you to say with certainty that the channel widths of the Antarctica device that was on sale prior to August 9, 2007 was 1 millimeter or less; correct?
> A. [Objections omitted] **Yeah. I would have no way of knowing that.** I was given a device that I understood to be representative, and you know, I measured it.

(*Id*., at 141:16-142:8; *see also* Ex. 13 (3/18/2022 Tuckerman Depo. Tr.), at 25:4-6.) Asetek has not shown the specific model represented by the *Antarctica* sample was sold before August 9, 2007, providing yet another ground for granting summary judgment on validity over *Antarctica*.

V. CONCLUSION

For the foregoing reasons, summary judgment of non-infringement of the '362 patent, and validity of the '330, '284, and '266 patents over *Antarctica*, should be granted.

[10] Dr. Tuckerman was unaware if multiple versions of the user manuals exist. (*Id*., 127:14-21.)

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